

**Fig. 2**

Abstract Word Correlation Matrix

	laundry	detergent	odor*	granul*	agricultur*	pesticid*	herbic*	insect*
laundry	0	69	7	63	0	0	0	0
detergent	69	0	11	83	1	0	0	0
odor*	7	11	0	2	0	0	4	3
granul*	63	83	2	0	8	3	11	1
agricultur*	0	1	0	8	0	0	8	0
pesticid*	0	0	0	3	0	0	0	1
herbic*	0	0	4	11	8	0	0	2
insect*	0	0	3	1	0	1	2	0

**Fig. 3a**

Expert opinion

**Laundry  
Technology  
Topic**

**Agriculture  
Technology  
Topic**

**Fig. 3b**

Word  
correlation  
analysis result

Second  
Technology  
Topics

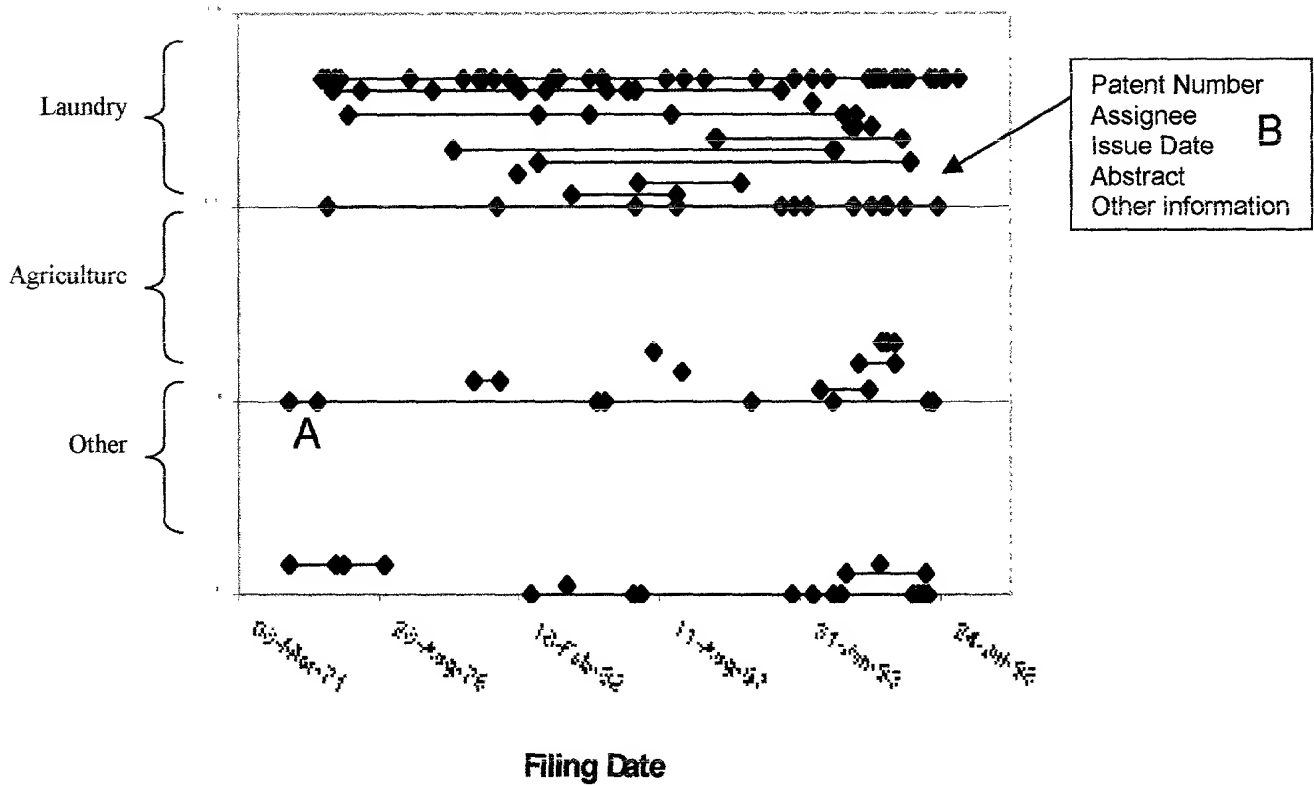
acid  
all  
bleach  
compositions  
containing  
detergent  
dry  
free  
granular  
laundry  
product  
silicate  
surfactant  
water

carbonate  
compositions  
detergent  
dry  
fabric  
granular  
laundry  
process  
water

agents  
growth  
herbicide  
liquid  
particles  
plant  
water

amine  
formulation  
formulations  
glyphosate  
granules  
growth  
herbicide  
oxide  
plant  
powder  
powders  
regulant  
salts  
water

## Technology Evolution



**Fig. 4**

# Technology Evolution

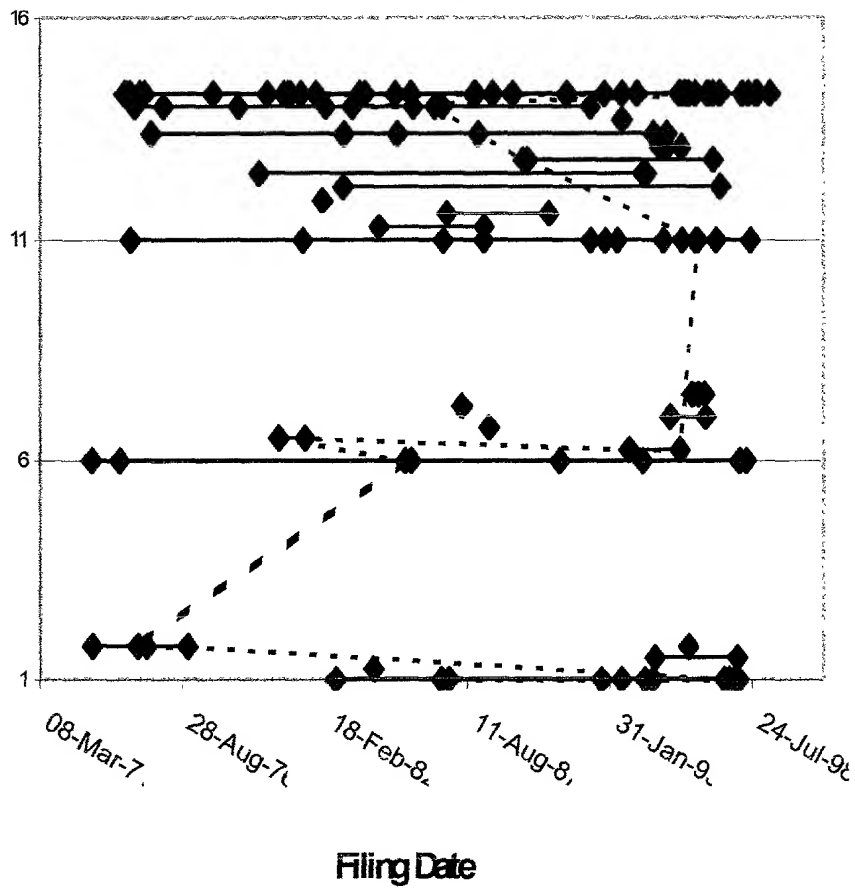
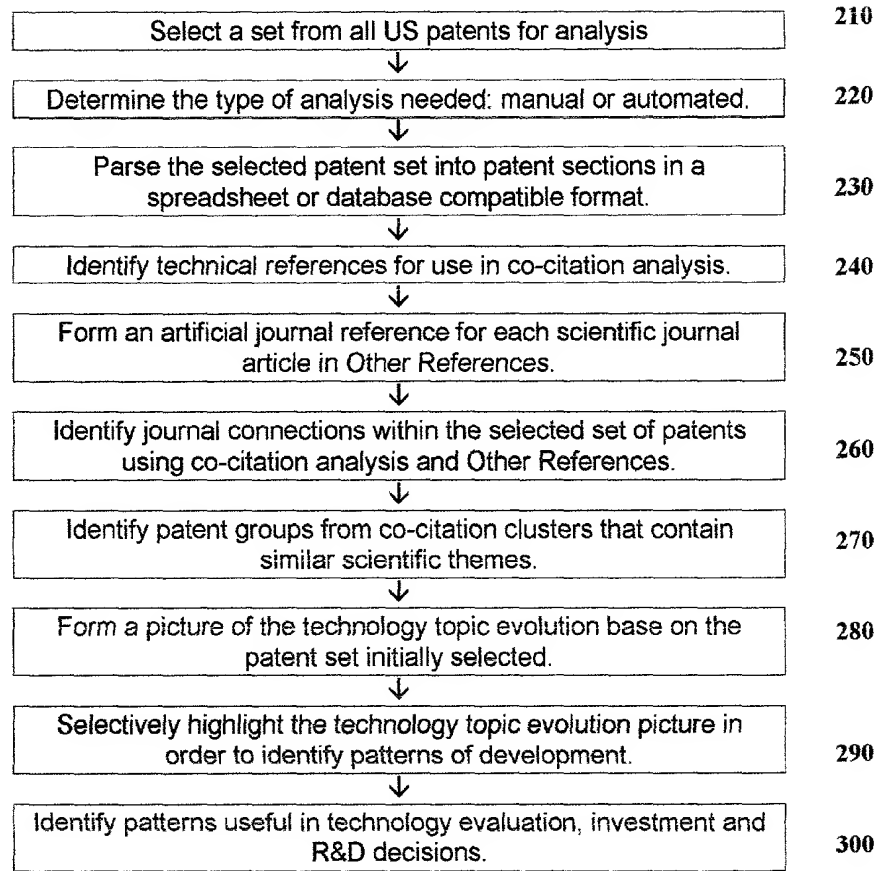


Fig. 5



**Fig. 6**

**Patenting Statistics: An Indicator of Technology Status**

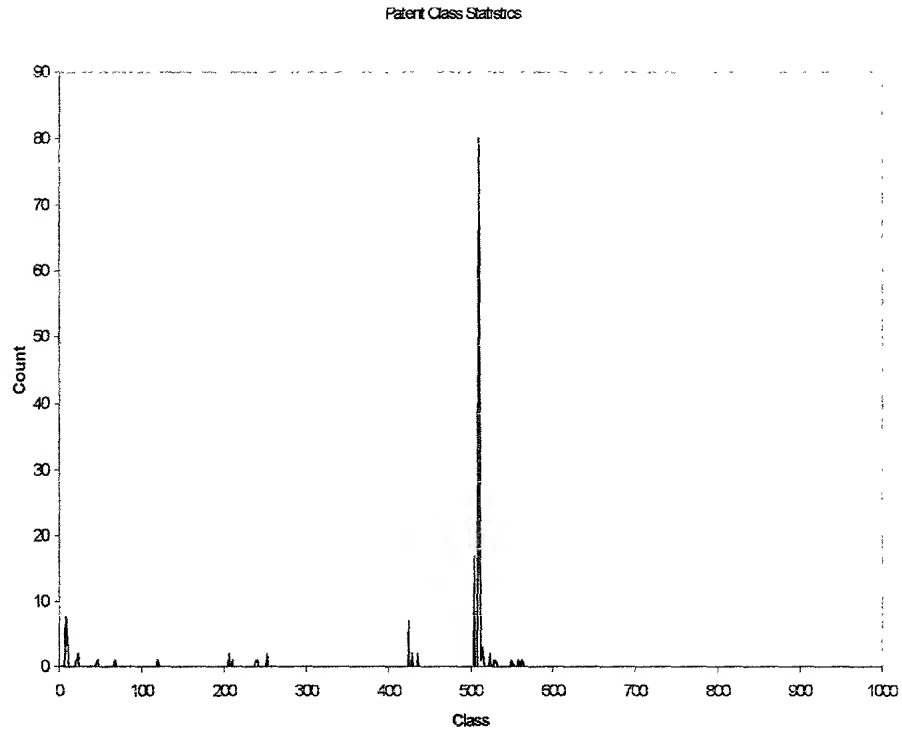
**7a**

Pattern	Biotechnology	Laundry Detergent	Cosmetics/Perfume	Wells, Drilling
Abstract	13	0	6	1
Book	74	10	10	8
Brochure	7	17	12	2
Government	2	0	1	0
Journal	650	9	80	23
Newspaper	60	0	0	0
Other	4	17	0	0
Patent	1	9	1	3
<b>TOTAL</b>	<b>811</b>	<b>62</b>	<b>110</b>	<b>37</b>
Number of Patents	13	10	11	11
<b>Journal Refs/Patent</b>	<b>62.4</b>	<b>6.2</b>	<b>10</b>	<b>3.4</b>

**7b**

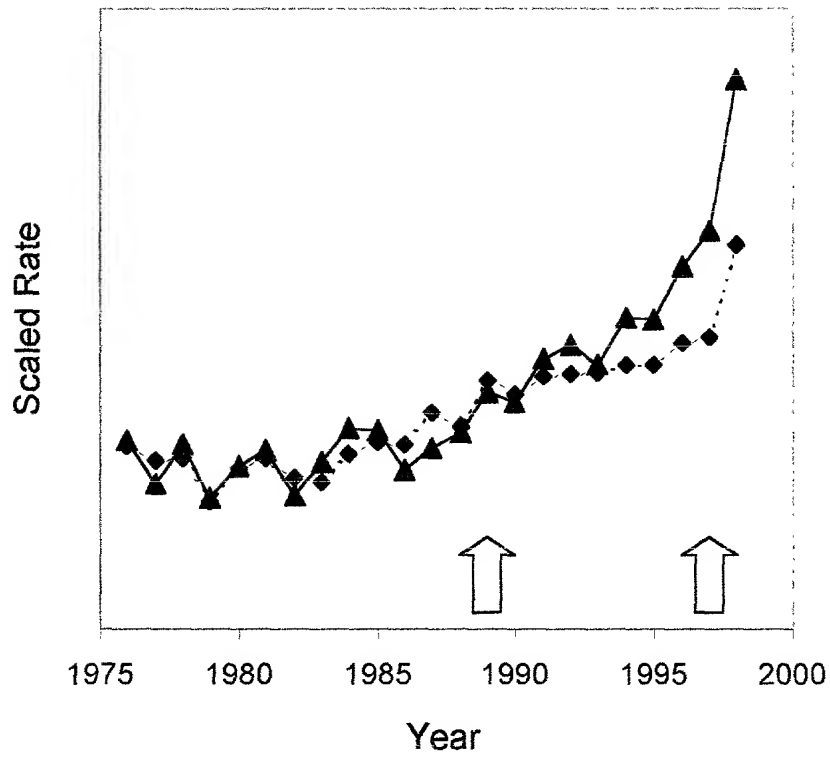
<b>Categorization &amp; Identification Accuracy</b>		
Run 2	Category	Ref.
OK	99.12%	98.25%

**Fig. 7**

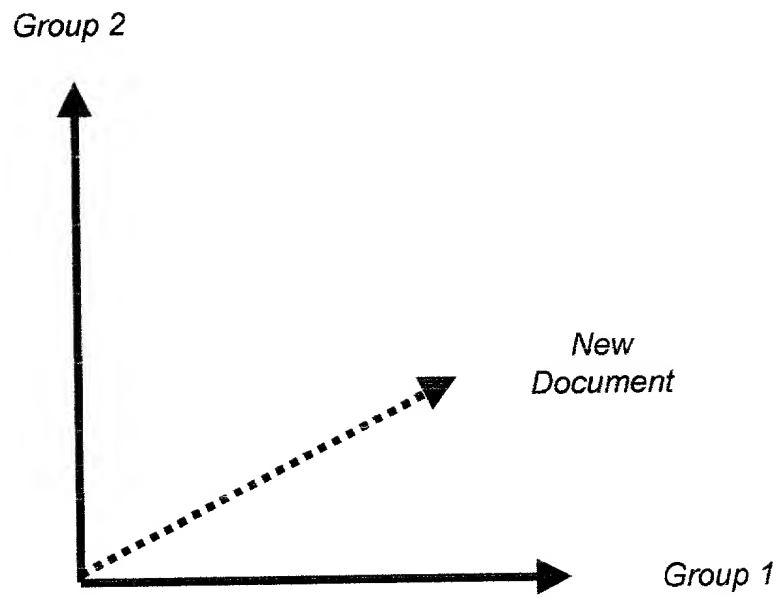


**Fig. 8**





**Fig. 9**



**Fig. 10**